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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,070	02/15/2002	Nobuyasu Suzuki	SUZUKI28	8511

1444 7590 07/10/2003

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EXAMINER

RODRIGUEZ, JOSEPH C

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/076,070

Applicant(s)

SUZUKI ET AL.

Examiner

Joseph C Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

### *Specification*

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: High-purity standard particle production apparatus and particles.

The abstract of the disclosure is objected to for improper language. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

*The language should be clear and concise and should not repeat information given in the title.* It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Objections***

The claims are objected to as the form of claims 1-6 is improper. Where a claim sets forth a plurality of elements or steps, as in the instant claims, each element or step should be separated by a line indentation. See MPEP 608.01(m) and 37 CFR 1.75(i).

Further, the language "particles" has been improperly pluralized throughout the claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Aya et al. ("Aya")(JP '222).

Aya teaches an apparatus (Fig. 1-5; English abstract) for producing high-purity particles comprising a generation chamber (101), a classification chamber (102) and a collecting chamber (103) with an orifice that reduces a piping cross section (Fig. 4, end of 42).

Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Seto et al. ("Seto")(EP '438).

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Seto teaches an apparatus (Fig. 5-12) for producing high-purity particles comprising a generation chamber (101), a classification chamber (102), a plurality of classification means (Fig. 12; para. 27, 95 et seq.), and a collecting chamber (103) with an orifice that reduces a piping cross section (Fig. 8, near 401).

Seto also teaches a heater in the collecting chamber (Fig. 8, near 402).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seto in view of Sajoto et al. ("Sajoto") (US '865).

Seto as set forth above teaches all that is claimed except for expressly teaching infrared radiation for a heating means. This feature, however, is well-known as one of various heating means used in the gas processing arts (Sajoto, col. 6, ln. 19-40). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Seto, which already contains a heater, with an infrared radiation heating means that is well known in the art.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aya or Seto in view of Hohla et al. ("Hohla") (US '034) or Wieser et al. ("Wieser") (US '222).

Aya or Seto as set forth above teach all that is claimed except for expressly teaching a gas refining means for the ambient gas. This feature, however, is well-known in chambers using gas excitation with light beams. For instance, Hohla (Abstract) and Wieser (col. 8, ln. 30 et seq.) expressly teach gas refining means. Moreover, the refining means provide the common-sense benefit of allowing the laser to operate in an uncontaminated environment. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Aya or Seto as taught above.

### ***Conclusion***

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph C Rodriguez whose telephone number is **703-308-8342**. The examiner can normally be reached on M-F during normal business hours (9 am – 6 pm, EST).

The examiner's **Personal fax number** is **703-706-3678**.

The **Official** fax phone number for the organization where this application or proceeding is assigned is **703-306-4195**.


The **UnOfficial** fax phone number for the organization where this application or proceeding is assigned is **703-306-2571** or **703-308-6552**.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **703-308-1113**.

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July 2, 2003

  
DONALD E. WALSH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600